

# The Design Manual for Urban Roads and Streets

Department of Transport, Tourism and Sport.  
Department of Environment, Community and Local Government.

## Overview

Significant change in planning within Ireland occurred in the mid 1990s with a focus on creating sustainable communities. Since this time planning and transport policies have become increasingly focused on the creation of a more compact urban form, the integration of land use and transportation and the creation of well connected and walkable neighbourhoods. The shift in planning policy was not however matched by a shift in road design standards. This has resulted in a gap between planning aspirations and road design outcomes. The Design Manual for Urban Roads and Streets (DMURS) fills this policy gap and offers designers the rationale and tools to enact the change required by broader government policies, including:

- Smarter Travel (2009)
- Sustainable Residential Development in Urban Areas (2009)
- Retail Planning Guidelines (2012)
- Planning Guidelines: Local Area Plans (2013)

DMURS is a joint initiative of the Department of Transport, Tourism and Sport (DTTAS) and the Department of Environment, Community and Local Government (DECLG). DMURS was produced by a multidisciplinary project team, consisting of staff from Cork City, Fingal, Kildare and South Dublin County Councils.

DMURS was launched on 25th March 2013 by Mr. Leo Varadkar T.D., Minister for Transport Tourism and Sport and by Ms. Jan O'Sullivan T.D., Minister for Housing and Planning at the Department of the Environment, Community and Local Government. DMURS replaces existing national design standards for use throughout all urban areas in Ireland when designing/upgrading roads and streets.

DMURS is now mandatory for all Local Authorities on all urban roads and streets within the 60 km/h urban speed limit zone except for

- Motorways
- In exceptional circumstances, certain urban roads and streets with the written consent of the relevant Sanctioning Authority<sup>1</sup>

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<sup>1</sup> Relevant sanctioning authorities include the National Roads Authority (NRA) in respect of urban national roads, the National Transport Authority (NTA) and the Department of Transport, Tourism and Sport.

## Challenging Convention

In recent times the car has been the dominant force in determining how street networks and streets are designed in Ireland. This approach has often had a negative impact on more vulnerable users (such as pedestrians and cyclists) as well as how streets are perceived as places. DMURS highlights the many issues associated with conventional design approaches that seek to minimise risk and delay for motor vehicles by creating wider and larger roads that place heavy restrictions on the movement of more vulnerable users. Such streets often have the effect of substantially increasing walking distances, severing communities and encouraging inappropriate speeds and more aggressive driver behaviour. The street environment itself is often characterised by fast moving traffic, a lack of surveillance, inadequate pedestrian and cycle facilities, physical barriers and complex crossing arrangements.

These factors can all lead to pedestrians and cyclists deserting the street and retreating to the safety of their cars. DMURS seeks to address these issues by:

- Broadening the scope of issues that are considered throughout the design process for roads and streets.
- Encourage more sustainable travel patterns and safer streets by placing pedestrians at the top of the user hierarchy.

## Place as Part of the Design Equation

DMURS recognises that the establishment of a 'sense of place' is of core significance to high quality outcomes. A greater emphasis on the value of place will promote:

- Local identity.
- Increased use by pedestrians and cyclists.
- Attractive environments that contributes to the social and economic vitality of communities.

To achieve this DMURS requires the creation of streets that are:

- Highly connected with all streets leading to other streets.
- Enclosed with buildings to define them as urban places and promotes pedestrian friendly spaces that are overlooked.
- Directly fronted with active edges that generate pedestrian activity, maximise pedestrian activity/surveillance and animate the public domain.
- Have high quality pedestrian facilities to make walking a more convenient and pleasurable experience that will further encourage pedestrian activity.

DMURS also recognises the importance of getting the details right and seeks to promote the use of high quality planting, lighting, materials and finishes. DMURS also seeks to reduce clutter by recommending a reduction in the number size and number of regulatory signs used within streets and applying a coordinated approach to the placement of street furniture.

Significantly, DMURS recognises that 'place' plays a vital role in creating safer, more user friendly streets. DMURS introduces a range of 'place based' measures and re-evaluates the effectiveness of conventional measures in order to create streets that are self-regulating. DMURS draws upon research to demonstrate that by using a combination of place based and conventional measures a 'win win' scenario can be achieved where traffic is calmed, place enhanced and more sustainable outcomes achieved.

### **Focus on Sustainable Modes**

DMURS recognises that achieving more sustainable travel patterns is foremost dependent on promoting walking and cycling. The provision of efficient and regular public transportation services is also highly dependent on people being able to access them conveniently by foot. A greater emphasis on connectivity and the pedestrian environment will promote:

- The growth of sustainable communities.
- Accessible and legible urban structures.
- Future adaptability to change.
- A balanced approach to traffic management

DMURS provides a range of measures aimed at increasing pedestrian mobility such as:

- Connected and legible via street networks where all streets lead to other streets maximising the number of walkable/cycleable routes between destinations
- Removing/omitting obstacles such as walls, fences and guardrails that interrupt key pedestrian desire lines:
- Simplifying and reducing the size of junctions to allow pedestrian to cross the street in a direct manner.
- Providing more generous facilities, such as wider footpath and crossings in order to maximise pedestrian comfort.

DMURS also recognises the importance of creating a greater sense of shared space, particularly where pedestrians gather in large numbers and are more likely to interact with vehicles. DMURS provides numerous examples where this has been achieved within Ireland and the UK via the use of design measures that promote low speed environments such as, shared surface carriageways and junctions.

## **Application**

To facilitate its implementation DMURS provides further advice on the principles, approaches and standards within can be reflected via local spatial plans and strategies. The application of DMURS in retrofit scenarios (where major works are proposed) will present designers with many challenges. To assist designers DMURS provides numerous examples of from Ireland and the UK to demonstrate how good outcomes can be archived within constrained environments.

DMURS also recommends that all design proposals be accompanied by a well documented design rationale that demonstrates how the principles, approaches and standards within the Manual have been applied, such as via a design statement. Further advice will also be forthcoming on Quality Audits, a design review process that cross evaluates more specialised auditing process, such as Road Safety Audits, to ensure that the recommendations of any single audit are not implemented in an isolated manner.

## **Collaboration and Consultation**

DMURS places a particular emphasis on the importance of collaborative working and co-ordinated decision-making. DMURS itself was produced by a multidisciplinary project team representative of the architecture, engineering, planning and urban design professions. All those involved broadened their range of skills by learning from each other. It is intended that operation of the Manual will also serve to exert the same influence over the built environment design professionals who use it and will lead to balanced, high quality, successful outcomes

Planners were central to the development and delivery of DMURS. This has ensured that the urban road and street design process must now incorporate key planning policy considerations such as those related to place making and the development of sustainable communities. An ongoing, collaborative role for the Planner in new urban road and street design projects, regardless of whether new build or retrofit, has also been established. This is one of the guiding principles of the Manual and is central to its operation.

DMURS has been written, structured and presented in a manner to ensure that it is universally all built environment professionals. The clear manner in which it has been written will also make the document accessible to the broader community, empowering them to become more engaged with the design process. To assist this process DMURS recommends designers undertake consultation from an early stage to identify issues, gauge the aspirations and facilitate community input into the design process. DMURS provides advice on how to involve communities in the design process, with a particular emphasis on workshop environments that allow participants to play an active role in the initial design of the project.